

## Bulletin 700-HC Miniature Ice Cube Relay

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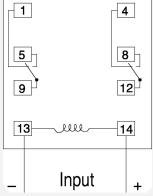
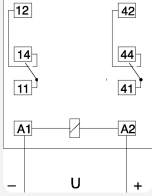
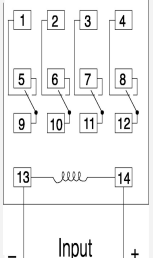
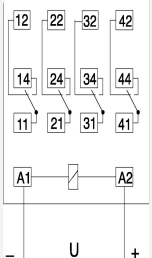
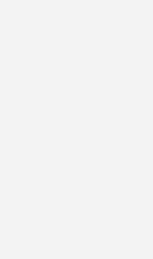
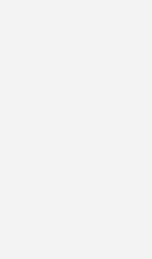
- 7 or 10 A contact ratings
- 2PDT or 4PDT
- Standard ON/OFF flag indicator
- Blade-style terminals
- Choice of standard silver nickel contacts, or silver nickel with gold-plated contacts for low-energy applications
- Options: LED, push-to-test with manual override option
- Tungsten UL Approvals
  - 4-Pole: 5A @ 24V DC
  - 2-Pole: 10A @ 24V DC



See Specifications

### Product Selection



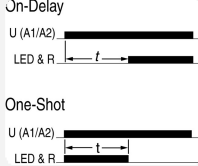
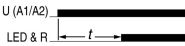

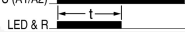
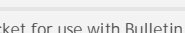






### Bulletin 700-HC Miniature Square Base with Blade Terminals

	Description	Contact Rating	Wiring Diagrams		Coil Voltage	Cat. No. ★ ‡
			U.S./Canada	International		
	2PDT 2-Pole 2 Form C Contacts: 10 A = AgNi Contacts	10 A C300 R300 Low energy rating; (10V, 10 mA) 100 mW			12V DC	700-HC22Z12
					24V DC	700-HC22Z24
					24V AC	700-HC22A24
					120V AC	700-HC22A1
					240V AC	700-HC22A2
	4PDT 4-Pole 4 Form C Contacts:  7A = AgNiAu Gold Plated Contacts	7 A Low energy rating; (5V, 10 mA or 25V, 2 mA) 50 mW			6V AC	700-HC14A06
					12V AC	700-HC14A12
					24V AC	700-HC14A24
					120V AC	700-HC14A1
					240V AC	700-HC14A2
6V DC					700-HC14Z06	
12V DC					700-HC14Z12	
24V DC					700-HC14Z24	
48V DC					700-HC14Z48	
110V DC					700-HC14Z1	
4PDT 4-Pole 4 Form C Contacts:  7A = AgNi Silver Contacts	7 A C300 R300 Low energy rating; (10V, 10 mA) 100 mW			6V AC	700-HC24A06	
				12V AC	700-HC24A12	
				24V AC	700-HC24A24	
				120V AC	700-HC24A1	
				240V AC	700-HC24A2	
				6V DC	700-HC24Z06	
				12V DC	700-HC24Z12	
				24V DC	700-HC24Z24	
				48V DC	700-HC24Z48	
				110V DC	700-HC24Z1	
		700-HN128	700-HN103 700-HN104	240V AC	700-HC22A2	
		700-HN128	700-HN104	48V DC	700-HC24Z48	
		700-HN128	700-HN104	110V DC	700-HC24Z1	

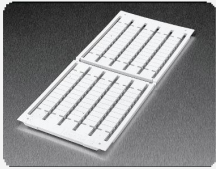

\* LED Option: Add suffix (-4) to the selected Bulletin 700-HC Relay Cat. No. except for the 240V AC units, add (-4L).

‡ Push-to-Test and LED Option: Add suffix (-3-4) to the selected Bulletin 700-HC Relay Cat. No., except for the 240V AC units, add (-3-4L).

## Accessories

	Description	Pkg. Qty.	Cat. No.
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 6...24V DC used with 700-HN104 socket	10	700-ADL1
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 28...60V DC used with 700-HN104 socket	10	700-ADL2
	<b>Diode with LED Surge Suppressor</b> Voltage Range: 110...220V DC used with 700-HN104 socket	10	700-ADL3
	<b>Varistor with LED Surge Suppressor</b> Voltage Range: 6...24V AC used with 700-HN104 socket	10	700-AV1R
	<b>Varistor with LED Surge Suppressor</b> Voltage Range: 110...240V AC used with 700-HN104 socket	10	700-AV3R
	<b>RC Surge Suppressor</b> Voltage Range: 6...24V AC/DC used with 700-HN104 socket	10	700-AR1
	<b>RC Surge Suppressor</b> Voltage Range: 110...240V AC/DC used with 700-HN104 socket	10	700-AR2
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 12...24V AC/DC used with sockets that accept plug-in accessory modules.	 <p>On-Delay U (A1/A2)  LED &amp; R </p> <p>One-Shot U (A1/A2)  LED &amp; R </p>	700-AT3
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 110...125V AC used with sockets that accept plug-in accessory modules.		700-AT3A1
	<b>Timing Module</b> On-Delay or One-Shot selectable voltage range: 230...240V AC used with sockets that accept plug-in accessory modules.		700-AT3A2
	<b>Screw Terminal Socket – Panel or DIN Rail Mounting; Guarded Terminal Construction.</b> $I_{th} = 10$ A per pole. 14-blade miniature socket for use with Bulletin 700-SC Relays.	10	700-HN103
Cat. No. 700- HN103			
	<b>Screw Terminal Socket – Panel or DIN Rail Mounting; Guarded Terminal Construction</b> $I_{th} = 10$ A per pole. 14-blade miniature socket for use with Bulletin 700-SC relays. This socket has coil and contact separation as well as the ability to plug in optional plug in modules (700-A__ accessories: LED, Surge Suppression, Timing Modules)	10	700-HN104
Cat. No. 700- HN104			
	<b>Screw Terminal Base Socket – Panel or DIN Rail Mounting; Open-Style Construction</b> $I_{th} = 10$ A per pole. 14-blade miniature socket for use with Bulletin 700-SC Relays.	10	700-HN128
Cat. No. 700- HN128			
	<b>DIN (#3) symmetrical hat rail</b> 35 x 7.5 x 1 m	10	199-DR1
Cat. No. 199-DR1			
	<b>Retainer Clip for Cat. Nos. 700-HN103, -HN104 and -HN128 Sockets with 700-HC Relays.</b> Secures relay in socket. *	10	700-HN114
	<b>Plastic Retainer and Ejection Lever</b> For use with the 700-HN104 Sockets for 700-HC relays. Built-in ability to accept 1492 Snap-in Markers	10	700-HN124
Sample Retainer Clips			

\* See Bulletin 700-HC Miniature Square Base Relay, Socket, and Retainer Clip Reference Chart

	Description	Pkg. Qty.	Cat. No.
	<b>Relay Identification Snap-in Markers</b> Snap-in markers fit on top of product covers. Squares slip into molded slot on top of product cover.	5	1492-MS5X12
		5	1492-MS6X9
		5	1492-MS6X12
		5	1492-MS8X9
		5	1492-MS8X12
		100	1492-MP-Blank
Snap-in markers			
	<b>Pre-Printed Identification Tags</b> — contains 10 sheets of pre-printed and blank tags. Each sheet contains 13 sets of the markings CR...9CR, TR...9TR, M...9M, F, R, 1S, and 117 blank tags. Tags are peel-off with sticky backing for easy placement on relays.	10	700-N40
	<b>Markers — Used for terminal identification</b>	50	700-N41

Relay Type	Socket Cat. No.	Retainer Clip Cat. No.
700-HC	700-HN103	700-HN114
	700-HN128	700-HN114
	700-HN104	700-HN114 or 700-HN124

**Cat. No. 700-HC...**

**Electrical Ratings**

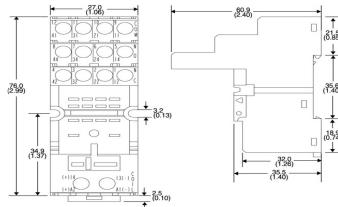
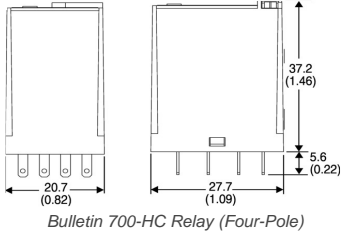
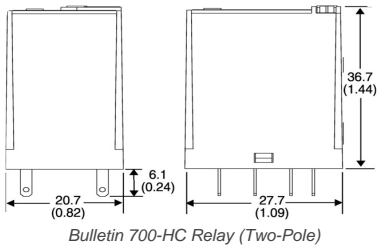
Pilot Duty Rating ‡	NEMA C300, R300							
Rated Thermal Current ( $I_{TH}$ )	7 A and 10 A							
Rated Insulation Voltage ( $U_i$ )	250V IEC - 300V UL/CSA							
Contacts	Inductive	<b>700-HC_4</b>			Hp	<b>700-HC22</b>		Hp
		►  ◀	◀  ►			►  ◀	◀  ►	
	120V AC	15 A	1.5 A	1/8	15 A	1.5 A	1/3	
	240V AC	7.5 A	0.75 A	1/3	7.5 A	0.75 A	3/4	
	General Purpose	7 A, 277V AC			10 A, 277V AC			
Resistive	7 A, 30V DC			10 A, 24V DC				
Min. Low Energy Permissible Load	100 mW (10V, 10 mA) - Silver Contacts 50 mW (5V, 10 mA or 25V, 2 mA) - Gold Contacts							
Permissible Coil Voltage Variation	Pickup:	80...110% of Nominal Voltage at 50 Hz			Must Dropout Voltage:	20% of Nominal Voltage at AC		
		80...110% of Nominal Voltage at 60 Hz				10% of Nominal Voltage at DC		
		80...110% of Nominal Voltage at DC						
		50 Hz			60 Hz			
Coil Consumption ±10%	AC Coils	Inrush	2.2 VA			1.6 VA		
		Sealed	1.3 VA			1.1 VA		
	DC Coils	1.0 W						
Max. Allowable Leakage	20% of VA (AC)							
	10% of W (DC)							

**Design Specification/Test Requirements**

<b>Electrical</b>							
Dielectric Withstand Voltage	Pole-to-Pole	2000V					
	Contact to Coil	4000V					
Electrical Life (Cycles)	100 000 minimum						
<b>Mechanical</b>							
Degree of Protection (Open Type) IEC 529	IP 20 (Guarded Terminal Sockets)						
Mechanical Life Cycles	20 x 10 <sup>6</sup> (AC) 50 x 10 <sup>6</sup> (DC)						
Switching Frequency Operations	1800/HR						
Coil Voltages	See Product Selection						
Operating Time (ms)	Max. Pickup	10					
	Max. Dropout	3					
Maximum Operating Rate	8 cycles/s						
<b>Environmental</b>							
Temperature	Operating	-30...+55 °C					
		(-22...+131 °F)					
	Storage	-55...+85 °C					
		(-67...+185 °F)					
Altitude	2000 m (6560 ft)						
Insulating Material	Molded High Dielectric Material						
Enclosure	Transparent Dust Cover						
Contact Material	AgNi (700-HC2) AgNi + 5 µm Au (700-HC1)						
Terminal Markings on Socket	In accordance with EN50 0005						
Sockets	700-HN103, -HN128, -HN104						
Certifications	cURus Recognized (File No. E14843, Guide NRNT2/NRNT8), cULus Listed when used with Bulletin 700-HN103, -HN104, and -HN128 sockets (File No. E14843, Guide NRNT/NRNT7), CE Marked, LR Certified						
Standards	UL 508, CSA 22.2 No. 14, EN 61810-1						

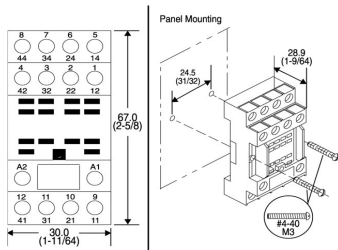
\* See Performance Data.

‡ NEMA Rating Chart is in publication 700-SG003\*



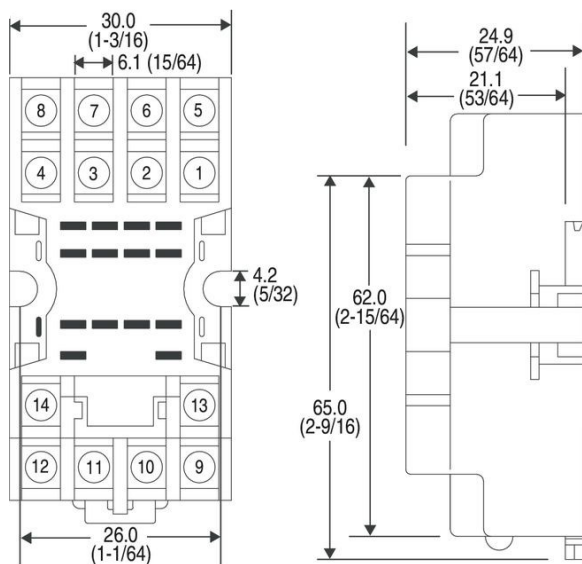
Cat. No. 700-HN104

Single Wire: 0.2 mm<sup>2</sup>...2.5 mm<sup>2</sup> (#24 AWG...14 AWG) Double Wire: 2 x 0.2 mm<sup>2</sup>...2 x 2.5 mm<sup>2</sup> (2 x 24 AWG...2 x 14 AWG) Wire Type: solid or stranded, copper only Strip Length: 7 mm (9/32 in.), Torque: 0.5 N•m (4.4 lb•in)



Cat. No. 700-HN103

Single Wire: 0.2 mm<sup>2</sup>...2.5 mm<sup>2</sup> (#24 AWG...14 AWG) Double Wire: 2 x 0.2 mm<sup>2</sup>...2 x 1.5 mm<sup>2</sup> (2 x 24 AWG...2 x 16 AWG) Wire Type: Solid or Stranded, Copper only Strip Length: 8 mm (5/16 in.), Torque: 0.5 N•m (4.4 lb•in)



Cat. No. 700-HN128

Wire Size: 2 x 1.5mm<sup>2</sup> (#2-16 AWG...#1-20 AWG)(Either Solid or Stranded) Strip Length: 9 mm (3/8 in.) – Torque: 0.8 N•m (7 lb•in)

